

IN THE CLAIMS:

Please amend claims 15-17, 20, 22-23, and 28 as follows.

Claims 1-14 (Canceled)

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15. (Currently amended) Chopper-type direct-current converter comprising:

a magnetic core, which comprises:

a first and a second side leg, the ends of which are ~~connection~~ connected to each other with end pieces; and

a center leg provided with an air gap and connected to the end pieces between the first and second side legs; around which magnetic core are arranged:

a primary winding;

a secondary winding; and

a secondary side filter coil; where

the filter coil is wound around the center leg; and

the primary and secondary windings are wound around the side legs so that ~~the magnetic flux produced by them flows in the same direction as the magnetic flux of the filter coil~~ the resulting magnetic fluxes produced by the primary and secondary windings flow in the same direction on the side legs, and so that the magnetic return flux flows in the same direction ^{in the} on center leg as the magnetic flux produced by the filter coil.

16. (Currently amended) Converter as defined in claim 15, wherein the primary side of the converter is provided with four primary windings, two primary windings being

connected in series around the first and the second side legs so that the magnetic flux ~~fluxes~~ produced by the primary windings ~~flows~~ flow in the same circular direction on both side legs along the perimeter of the magnetic core.

17. (Currently amended) Converter as defined in claim 15, wherein the secondary side of the converter is provided with two secondary windings connected in series around the first and the second side legs so that the magnetic flux produced by ~~the windings~~ a secondary winding flows in a direction opposite to the direction of the magnetic flux produced by the primary winding placed on the same side leg.

18. (Previously presented) Converter as defined in claim 15, wherein:

the primary side is provided with series-connected first and second switching elements, which are connected in parallel with an input voltage and which serve to control the primary windings; and

the primary side is provided with two capacitors, the first capacitor being connected between the switching elements and the second capacitor in parallel with the input voltage.

19. (Previously presented) Converter as claimed in claim 16, wherein the primary side of the converter is provided with two switching elements and two capacitors in such manner that:

the first switching element is connected in series between two primary windings and the second switching element correspondingly in series between the other two primary windings; and

the first capacitor is connected to a first side of the first switching element and to a second side of the second switching element and the second capacitor is connected to a second side of the first switching element and to a first side of the second switching element.

20. (Currently amended) Converter as defined in claim 15, wherein the primary side of the converter is provided with four windings in such manner that:

first two windings are connected in series around the first and second side legs;

the magnetic flux produced by windings flows in the same circular direction ~~on both side legs~~ along the perimeter of the magnetic core; and

the other two windings are connected in a corresponding manner so that the windings produce a magnetic flux in a circular direction along the perimeter of the magnetic core, the direction of which is opposite to the one produced by the first two windings on the same side leg.

21. (Previously presented) Converter as defined in claim 20, wherein the primary side is provided with two switching elements and a capacitor in such manner that:

the first and second switching elements are connected by one end in series with two primary windings and by the other end to one pole of the input voltage; and

the capacitor is connected in parallel with an input voltage.

22. (Currently amended) Converter as defined in claim 15, wherein the primary side is provided with two switching elements, two capacitors and two windings in such manner that:

the switching elements and the capacitors are arranged in a half-bridge circuit; and

the windings are connected in series so that the magnetic flux produced by the windings ~~slows~~ flows in the same direction on both side legs and the windings are connected by one end between the switching elements and by the other end between the capacitors.

23. (Currently amended) Converter as defined in claim 15, wherein the primary side is provided with four switching elements, a capacitor and two windings in such manner that:

the switching elements are arranged in a full bridge circuit;

the capacitor is connected in parallel with the supply voltage; and

the windings are connected in series so that the magnetic flux produced by the windings ~~slows~~ flows in the same direction on both side legs and the windings are connected by one end between two switching elements and by the other end between the other two switching elements.

24. (Previously presented) Converter as defined in claim 15, wherein the first end of the filter coil is connected between the secondary windings on the first and second side legs and the second end is connected to a first pole of an output voltage of the converter.

25. (Previously presented) Converter as defined in claim 18, wherein the secondary side is provided with a third and a fourth switching element connected in series with the secondary winding and a second pole of an output voltage of the converter is disposed between the third and fourth switching elements.

CS 26. (Previously presented) Converter as defined in claim 24, wherein the secondary side is provided with a first and a second diode connected in series with the secondary winding and a second pole of the output voltage of the converter is disposed between the first and second diodes.

27. (Previously presented) Converter as defined in claim 15, wherein the secondary side is provided with at least two different voltage outputs in such manner that, for each voltage output, two windings are connected around the first and second side legs.

28. (Currently amended) Chopper-type regulator, comprising:

a magnetic core, which comprises:

a first and a second side leg, the ends of which are connected to each other with end pieces; and

a center leg provided with an air gap and connected to the end pieces between the first and second side legs; around which magnetic core are arranged:

two windings; and

a filter coil, wherein

the filter coil is disposed around the center leg; and

the windings are disposed around the side legs so that the magnetic return flux produced by them ~~flow~~ flows in the same direction with on the center leg as the magnetic flux ~~of produced by~~ the filter coil.